conspicuous that it is hunted much, but the embryo hunters have found, much to their chagrin, that it is next door to impossible to stalk the wary bird. Despite this, the Curlew decoys readily and is often 'whistled down' by an imitation of his call. Wound one and his yelping will attract every other Sickle-bill within hearing distance, and they will circle and return time and again until the last one is killed.

The nest is a mere depression in the ground, sometimes with a small lining of dead grass, in which are placed three or four ashy clay-colored eggs, covered with a few brown or chocolate spots and blotches. In the Northwest the nest may often be found under or at the foot of a sage bush but more often it is right out on the open prairie where both birds, male and female, help in the task of incubation and upbringing.

BIRDS OF PORTO RICO.

BY B. S. BOWDISH.

WHEN, in 1898, I began to study the birds of Porto Rico, I was somewhat surprised to find how meagre was the literature on the subject. Later, as my work slowly progressed, I felt a growing desire to add at least a little to the general fund of knowledge respecting Porto Rican ornithology, and to this end I have decided to submit the following notes, based on my own observations, extending from February 22, 1899, to February 16, 1900, and from May 5, 1900, to October 24, 1901. During most of this time — from February 22, 1899, to July 1, 1901 — I was in the army and my opportunities for ornithological work were limited by military duties. Later, while I was collecting specimens for the National Museum, my opportunities for observation were somewhat better, but even during this period of my stay in Porto Rico, observation was necessarily somewhat of a secondary matter.

Therefore it will be understood why the breeding habits of the birds, that most interesting and instructive feature of a bird's life, are here so scantily treated.

In this connection I take pleasure in acknowledging my indebtedness to Dr. Charles W. Richmond, of the U. S. National Museum, for furnishing me with a 'hypothetical list' of the birds likely to occur in Porto Rico, which was of much assistance to me in my field work, and also for his kindness in revising the manuscript of this list. I am also indebted to Mr. Frank M. Chapman, whose kind assistance in identifying some of the doubtful specimens in my collection has greatly aided me in the preparation of this paper.

In order to make the present paper a complete list of all the birds known to occur in Porto Rico I add at the end a supplemental list of species thus far recorded from the island that were not observed by me. This list is based mainly on Dr. Richmond's above-mentioned 'hypothetical list.'

1. **Podilymbus podiceps.** PIED-BILLED GREBE.— I purchased a female from a native at Aguadilla, June 3, 1900. It is slightly smaller than northern birds. The ovaries were somewhat developed. Stomach contained the remains of three crawfish and a small quantity of mammal hair; apparently the bird had fed on a drowned and partially decomposed rat. Perhaps not uncommon in suitable localities.

2. **Larus atricilla.** LAUGHING GULL.—Abundant around the coasts and on the outlying islands. At San Juan the natives often had them alive, with a wing clipped, and sold them for food. A friend purchased and gave me a female which I kept alive from April 28 to May 3, 1900, when I was obliged to dispose of it. It was not very wild, although objecting to being handled, and ate and drank freely. I fed it both raw and cooked beef. When I visited Decicheo Island on June 24, 1900, and again July 6 to 10, 1901, I found about eight or ten pairs, but got no data as to their breeding. At the time of the latter trip I noticed a pair feeding on the floating body of a Booby I had skinned and thrown into the water.

3. **Sterna antillarum.** LEAST TERN.— Noted one pair near Cabo Rono lighthouse, Aug. 22, 1901.

4. **Sterna fuliginosa.** SOOTY TERN.— Common at Mona Island on the occasion of my visit there, Aug. 5 to 21, 1901. An immature female which flew against the light during a cloudy night, Aug. 13, was injured and captured. At times large numbers of birds are said to fly against the light.

5. **Sterna anæthetus.** BRIDLED TERN.— Common on the islands of Mona and Decicheo, where they breed in large numbers; also frequently seen on the coast of the main island. On June 24, 1900, they were appar-

ently just beginning to breed, and the three single eggs found were nearly fresh. In each case they were laid in more concealed spots than those selected by the Noddy,— in one case under a rock on the beach, in another in a pocket in the face of a cliff near the top, and the third was in a hollow under a rock about fifteen feet above the beach. The birds were much shyer than the Noddy, leaving the nest with a dash before the intruder approached near enough to locate it. Another egg collected on July 6, 1901, and advanced in incubation, was laid on the bare earth, in a hollow behind a rock on a shelf in the face of a cliff ten feet above the beach. In no case was there the slightest nesting material. These breeding notes were made at Decicheo.

6. **Anous stolidus.** NODDY.— Not uncommon along the coasts of the main island, and by far the most abundant species on Mona and Decicheo. At the latter island, on June 24, 1900, a few had well grown young, and most of the eggs were advanced in incubation. These were laid almost invariably on the bare surface of the rock shelves in the face of the cliff, varying from eight to forty feet above the beach, and in only one or two cases was there a slight ring of bits of sticks and stones about them. They apparently do not lay more than one egg, and the various cliffs are occupied by one, two, three, or a larger number of birds, according to the accommodations; but the sitting birds were never found within reach of each other, which is probably due to their slightly quarrelsome disposition, all reports to the contrary notwithstanding. July 9, 1901, I placed a young one which had fallen from the nest on a rock near another. The parent of the latter attempted to drive the intruder away, when the intruding bird's parent took part in the disturbance, and thereafter there was a continuous dispute. At this date the Noddies had nearly all of them young of varying sizes. I found one egg nearly hatching and another almost fresh. In the stomach of one bird examined I found an entire flying-fish about four inches long and remains of others. Other stomachs contained fish remains. The method of feeding the young is by leisurely disgorging swallowed and half digested food well into the throat of the young. The common note resembles the clamor of young crows, and is often heard, more or less, throughout the night. Of a number of photographs taken I was able to save but one, of a young bird standing in the shadow of the rock and exhibiting in some degree an example of protective coloration.

7. **Phæthon,** sp. ? —I saw, but failed to secure, Tropic Birds at Decicheo and Mona Islands, but on one occasion, at Mona, a bird passed closely enough for me to distinctly see the yellow bill. Have also seen Tropic Birds at San Juan harbor.

8. **Sula sula.** BOOBY. — Abundant at Mona and Decicheo Islands, and often seen on the coasts of the main island. Probably breeds early as most of the young are on the wing by late June. I suspected the occurrence of other species of the genus at Decicheo, but failed to substantiate this suspicion. On July 9, 1900, at Aguadilla, I made the following note:

"They fly just over the waves, usually with steady beat of wing, but occasionally sailing for a distance with wing-tips curving down. At times they enter the water at a very slight angle while thus sailing. Again they rise some ten feet and descend perpendicularly, like an arrow, into the water. They dive readily and leave the water with the utmost ease, seeming to start as from a solid perch the instant they appear on the surface."

9. **Pelecanus occidentalis.** BROWN PELICAN. — Common everywhere about the coast of the main island, and on Vieques Island. Saw none, however, on Mona or Decicheo, nor did I locate any breeding place.

10. **Fregata aquila.** MAN-O'-WAR BIRD. — Common about the coast of the main island and on the islands of Vieques, Mona, and Decicheo, breeding on the two latter. On June 24, 1900, at Decicheo, a young male, nearly full grown but in immature plumage and unable to fly, was taken. My notes say: "Not well feathered; tail square, fork not developed; head and much of the plumage white; bill and feet bright blue."

11. **Phœnicopterus ruber.** AMERICAN FLAMINGO. — This bird is said to occur at times in the lagoons about Cabo Rojo.

12. **Ardea herodias.** GREAT BLUE HERON. — Common in suitable localities.

13. **Herodias egretta.** AMERICAN EGRET. — Common in suitable localities.

14. **Florida cærulea.** LITTLE BLUE HERON. — Common in suitable localities and particularly in the mangrove swamps about San Juan Bay where they doubtless breed.

15. **Butorides virescens.** GREEN HERON. — Common everywhere about the small streams, and quite fearless, allowing close approach. Several stomachs examined contained, respectively, remains of lizards and crabs, and one whole fish about six inches long; a kind of water beetle about three quarters of an inch long, many entire; crawfish and grasshoppers; eleven crawfish; small live worms.

16. **Nyctanassa violacea.** YELLOW-CROWNED NIGHT HERON. — Common in the localities visited. I even found it common on Mona, which seemed rather remarkable, as it is a dry, hot rock, with no sign of lagoon or swamp. Stomachs examined contained: fiddler crabs; two fresh water eels about six inches long, and two crawfish; also a number of live worms which may have been taken in with other food.

17. **Rallus longirostris caribæus.** CARIBBEAN CLAPPER RAIL. — Shot a male in a mangrove swamp near San Juan Bay, July 21, 1899. Stomach contained a few remains of fiddler crabs.

18. **Gallinula galeata.** FLORIDA GALLINULE. — Bought a female, with slightly developed ovaries, from a lad at Aguadilla, June 10, 1900. Stomach contained remains of small aquatic life. At Mayaguez, on June 12, 1901, a boy had two adults alive with the wings clipped.

19. **Tringa maculata.** PECTORAL SANDPIPER. — Sept. 26, 1900, during a 'wave' of Sandpipers, I took at a mud-flat in a cocoa grove, a female of this species, and I shot a male at the same place on Oct. 2. The stomachs in each case contained fiddler crabs.

20. **Tringa fuscicollis.** WHITE-RUMPED SANDPIPER.—This bird is not included in Dr. Richmond's list and was probably not recorded at the time of my going to Porto Rico. I shot a female at the above mentioned mud-flat, Oct. 2, 1900. Stomach contained fine grit, and well digested aquatic life.

21. **Tringa minutilla.** LEAST SANDPIPER.— On Sept. 23, 1900, at the mud-flat above referred to, I shot a male. At the same place, Sept. 4, 1901, I shot ten in a few minutes and could have shot many more. Their stomach contents was small snails and bits of grit. Dr. Richmond did not include the bird in his list and I am not sure that it has been previously recorded. I found the bird common also at Mona Island, where I shot a female Aug. 11, 1901.

22. **Totanus flavipes.** YELLOW-LEGS.— Shot a female at the above mentioned mud-flat, Oct. 7. Stomach contained a few grains of sand.

23. **Helodromas solitarius.** SOLITARY SANDPIPER.— Often seen in fall and winter. Shot a male Oct. 7, 1900, another on Oct. 18, a third Dec. 9, and a fourth on Sept. 5, 1901. Three stomachs were empty, the fourth contained a little fine aquatic life.

24. **Actitis macularia.** SPOTTED SANDPIPER.— Common through autumn and winter. Began to arrive by the middle of September, and was seen as late as April.

25. **Ægialitis vocifera.** KILLDEER.— Fairly common throughout the winter, at times feeding on the U. S. Infantry drill grounds. In 1899, at San Juan, I noted them as late as March 26. The following autumn I heard them first on Oct. 18. In 1900, I heard them on April 7. In the autumn I heard the first at Aguadilla, Oct. 7. In 1901 I recorded them on Feb. 28, at Aguadilla. I was away from Porto Rico during part of March and April, or I might have gotten a later date. In the autumn my date for their arrival at Mayaguez was Sept. 4.

26. **Ægialitis wilsonia rufinucha.**— Shot a male from a small flock of sandpipers on the beach at Vieques, Nov. 5, 1899. Stomach empty.

27. **Hæmatopus palliatus.** AMERICAN OYSTER-CATCHER.— A few noted at Decicheo.

28. **Colinus virginianus cubanensis?** CUBAN BOB-WHITE.— Introduced. Very rare. I saw one on a hill near Mayaguez, but it vanished before I could change the shell in my gun, and in the dense under-brush I was unable to again find it.

29. **Numida meleagris.** GUINEA FOWL.—Common in certain localities.

30. **Columba caribæa.** CARIBBEAN PIGEON.— According to Dr. Richmond: "Gosse says, 'in large flocks.' No other or later record."

31. **Columba squamosa.** SCALED PIGEON.— Common where not too much hunted. On Mona they were abundant, though not as much so as the next.

32. **Columba leucocephala.** WHITE-CROWNED PIGEON.— Sometimes seen about Mayaguez. Very abundant on Mona Island. One shot near Aguadilla Island. Probably common in all suitable localities.

33. **Zenaidura macroura.** MOURNING DOVE.— Common everywhere.

34. **Zenaida zenaida.** ZENAIDA DOVE.— Found abundantly on Mona Island, and probably common in other suitable localities. One shot near Aguadilla.

35. **Columbigallina passerina.** GROUND DOVE. — Common everywhere. The nests are built well above the ground, probably to avoid the depredations of the mongoose, and for a bird of this family are usually quite substantial. Nesting dates are: Near San Juan, July 19, 1899; eggs two, fresh; nest twelve inches above ground in a dead bush in bush-grown pasture. Measurements of nest: diameter 3.63 × 2.13 inches; depth 1.25 × .50. Aguadilla, June 9, 1900; eggs two, incubation advanced; nest eight feet from the ground, on a horizontal branch of a mango tree, in an open field. Measurements: diameter 4.75 × 2.13; depth 1.63 × .63. June 9, 1900, ten feet from ground. Incubation advanced. June 24, on top of stump among sprouts, nine feet from ground, and close to a house. Eggs fresh. July 12, two fresh eggs, eight feet from ground. July 22, two eggs, incubation advanced; twelve feet from ground, on extreme tip of a mango limb, near a house. July 27, two fresh eggs, twelve inches from ground in tiny thorn bush, in a cultivated field. Mona Island, Aug. 11, 1901, two eggs, about one half incubated. Nest three feet from ground in a bush near a path; also a single fresh egg on bare rock in path.

36. **Geotrygon chrysia.** QUAIL DOVE.— I only saw this species on Mona Island but it is doubtless found on the main island.

37. **Geotrygon montana.** RUDDY QUAIL-DOVE.— Noted at Vieques (where I shot a male Dec. 30, 1899), at Aguadilla, and very common on Mona Island.

38. **Buteo borealis.** RED-TAILED HAWK.— Nowhere rare, apparently quite abundant in the vicinity of Las Marias. I secured only two specimens, a male, Vieques, Jan. 26, 1900, the stomach containing the bones and hair of a rat, and a female at Mayaguez, July 31, 1901, the stomach containing the fur of a rat. This specimen was sent to the National Museum. Comparison of a series with specimens from the United States, may develop the fact that the birds from Porto Rico are entitled to subspecific recognition.

Near Cataño, March 27, 1899, I found a nest ready for occupation. It did not differ from nests of this species in the States, and was built in a large tree about 50 feet from the ground, on a wooded hillside.

39. **Falco dominicensis.** CUBAN SPARROW HAWK.— Common in all localities visited. Feeds chiefly on small lizards, grasshoppers and large insects.

40. **Pandion haliaetus carolinensis.** AMERICAN OSPREY.— Not abundant. I noted a pair at Vieques and secured the male, Dec. 31, 1899. Stomach empty. At Mona Island I saw the foot of one which had been shot there.

41. **Asio portoricensis.** PORTO RICAN OWL.— I saw a bird of this species in the marsh grass at San Juan Bay, Feb. 12, 1900. This was the only specimen noted.

42. **Gymnasio nudipes.** NAKED-FOOTED OWL.— Occurs abundantly about the coffee plantations near Mayaguez. The bird is said to bite the coffee berries as they are ripening (the natives declare the birds eat them, though I have never found traces of them in the stomachs examined), and at this time the bird's notes are likened by the natives to a song of *coffee, coffee, coffee.* It is said that considerable damage is done in this way.

At Mayaguez, May 16, 1901, I bought two young ones, about half-grown, from a native lad and caged them in quite roomy quarters, making photographs of them the next day. On the 21st I added an adult female and a young one not over a third the size of the others. At this time I was feeding them raw beef, serving each in turn, a piece being held out to them on the end of a wire. They ate very readily, the adult being the most conservative. My notes from this time run: May 22. Found adult had a broken leg and made an attempt at splintering it. When the older ones are hungry they swallow the meat as soon as it is handed out to them, but when not very hungry, they are inclined to seize it in one claw and attempt to tear it with their beaks. They are very bright. The little one ate a piece of meat this morning, but as yet I have not seen the adult eat anything. May 25. Owls still remain bright. Find they do not eat well during the day, so I place the meat in the cage at night only. I feed the youngest, who takes meat readily off the end of a wire but not from my fingers. He braces up and back as he sees the meat approaching, as though frightened; then, shutting his eyes, he seizes it in a desperate fashion. While I am about the cage he keeps up a sort of a low twittering, similar to the vesper peeping of young chickens when brooded by the hen; he also snaps his beak, and bites when handled. I have heard the others make no other sound than snapping the beak. Took some cockroaches to the owls this evening. Since the last two were put in the cage I have not seen the first two come down from the higher perches, but this evening all four were on the floor where they had been feeding on beef, and were bright and fierce. May 27. Bought two more young owls, a little smaller than the first pair. May 28. To-day I heard from the old one and from one of the young ones a slight cry like that of the low guttural growl of a cat. May 29. To-day while working near the cage I heard a sort of squeaking cry from one of the owls. This evening when I went to feed them, I found one of the last pair dead. The stomach, though empty, had evidently not long been so, and though the condition of the bird was poor, it was perhaps no more so than normally. June 1. The remaining five owls seem to be doing well, and the youngest grows remarkably fast. June 4. This P. M. I found my adult owl dead. The leg had pretty well healed, but the bone would hardly have knit properly. Stomach contained almost perfectly digested meat, and grit from the floor of the cage. The remaining four appear bright. Am teaching the youngest to feed himself. He was on the perch for the first time to-night. June 6. Took three more photo-

graphs of the youngest owl. He has developed wonderfully since last photographed. He drooped his wings and bristled like the others. June 12. Another of the owls died to-day. They do not seem to do well on the meat of birds, and this is all I have had for them lately. June 13. Gave my owls a feed of disabled cockroaches, which they seemed to relish very much. Though they are active in daylight, when subjected to lantern-light at night, they seem blinded and stupid. June 21. Found one of my young owls dead this evening.

The remaining owl died while I was at Mona, in August. The one dying on June 21, had lived from May 16 until that time in confinement; the last one lived from May 27 until the middle of August. They occupied a roomy cage on the roof, and had I been able to provide them with a more insectivorous diet, I presume they would have lived longer. In the case of the youngest, it was my purpose to photograph him each week until full grown, but the loss of a box of negatives in the mail, and the premature demise of my subject frustrated my plan.

I vainly tried to get information as to the nesting of these owls from the natives, and they assured me that seeing an owl, or as they called it a 'mookera,' in the day time was an impossibility, yet I did repeatedly, see them roosting in some sheltered spot, both in the coffee bushes and in the trees above them. A female sitting in a tree over a grosbeak that I shot, did not move until I saw and shot it; at this shot the male flew to a near-by tree, where I also secured him. Their stomachs contained the remains of beetles, many quite small, and a few cockroaches. This was June 27, 1901. From the results of my study of them, I should be very strongly inclined to think the coffee eating stories altogether unfounded, and without doubt based on circumstantial evidence, as is so often the case with the evil reports of birds. They doubtless eat harmful coleoptera, and as they seem to have no taste for bird-flesh, I should say that they are a very desirable species and deserve protection.

43. **Amazona vittata.** PARROT. — Still fairly common in the wilder mountain regions, but I was not fortunate enough to secure any.

44. **Crotophaga ani.** ANI. — Exceedingly abundant everywhere. I searched vainly for a nest till finally, at Aguadilla, a boy brought five eggs to sell me that I was at once sure belonged to this species. I secured them and a promise of more. On August 13 he brought me twenty more, all taken from one nest. I immediately persuaded him to take me to the nest, and found it to be in a small tree about eight feet from the ground, in a jungle of bushes and trees, just at the foot of one of the small bush-grown conical hills that, near Aguadilla, rise from the level, cleared pasture lands. The birds were still about the nest and noisy, and there was no further doubt as to the identity of the eggs.

The nest, built of fine twigs and dead leaves, was large, bulky, and originally deeply cupped. Probably four or five females contributed to this set, that being the usual custom. When a layer of four or five eggs is laid a layer of dead leaves is deposited over them and a second layer of

eggs laid, and by the time the set is completed the nest is pretty well filled. The measurements of the nest were: depth 6.00 × 1.50; diameter, 9.00 × 4.50 inches. Of the eggs, incubation had begun in eight. The other twelve were fresh. They are cuckoo's egg blue, streaked longitudinally with a limy white deposit which washing does not remove. They average 1.55 × 1.08 inches, and five individuals selected at random measure: 1.50 × 1.00; 1.57 × 1.10; 1.59 × 1.10; 1.53 × 1.09; 1.56 × 1.10. A pair of birds that I shot from a flock feeding in a pasture had their stomachs distended with grasshoppers, probably fifty or more in each.

Of other stomachs examined the largest proportion of the contents was insects, a small percentage being seeds. These strange birds, with their quaint cry, are called 'black witch' by the English speaking people of the West Indies, and 'hudia' in Spanish.

45. **Saurothera vieilloti.** VIEILLOT'S GROUND CUCKOO.— Not rare, but not nearly as common as is *S. merlini* in Cuba, and much more retiring. Its notes are cuckoo-like but deeper and more guttural than those of our birds. Though the birds are called 'lizard cuckoo,' I found a lizard in but one of the stomachs examined, insect food, largely coleoptera, prevailing. Of their breeding I unfortunately learned nothing.

46. **Coccyzus minor dominicensis.** MANGROVE CUCKOO. — This bird, like the last, is apparently not abundant in Porto Rico, though I found them fairly so at Mona Island. The notes are much like those of the Yellow-billed Cuckoo. A female shot near Mayaguez, Sept., 1901, would have laid the first egg the next day. This is the meagre information of their breeding which I gathered. Lizards as well as insects enter into their diet. The stomach of the specimen taken contained two lizards, a snail, and a katydid.

47. **Coccyzus americanus.** YELLOW-BILLED CUCKOO. — I shot several near Aguadilla, and secured one on Mona Island. They do not appear to be abundant.

48. **Todus hypochondriacus.** Very plentiful about Aguadilla and Mayaguez, especially the latter. They were not abundant in the vicinity of San Juan, and I did not find them on the smaller islands. Structurally its closest affinity is with the Kingfisher.

This bird belongs to a genus comprising six species, all occurring in the Greater Antilles. They are quite fearless of man, and often approach within two or three feet of the observer, apparently moved by curiosity. The condition of birds examined on Feb. 3 indicated the approach of the breeding season, and others examined on May 30 that the breeding season was well along.

I was unable to find a nest but a lad who claimed to have found them said they laid in burrows dug in a bank of earth, and that the eggs were white. One of the notes of this species is curiously like the low *quack* of a duck, but loud for the size of the bird. It also at times emits a sound like a whir of springs, usually when taking a short flight. In mentioning this characteristic of the Cuban bird, *T. multicolor*, Mr. Chapman says he

is inclined to attribute the sound to the attenuate outer primary, stating that the sound is not mentioned in descriptions of the Jamaican bird, *T. viridis,* and that he finds the outer primary shorter and not so attenuate, curved and stiffened as in the Cuban species.[1] I have not had the opportunity of examining the Jamaican birds, but comparison of the few specimens of *T. hypochondriacus* with *T. multicolor* in my collection shows the outer primary of the former to be decidedly shorter and less attenuate than that of the latter. These birds sit on a twig watching for their prey often with the beak pointed almost straight up, and darting suddenly from this perch they sometimes take an insect on the wing, though more often hover in front of a leaf or flower for that purpose, somewhat after the manner of a hummingbird, but for a shorter period and with less rapid wing-beats. Its food is entirely minute insects. I kept a wounded bird in a cage for two days, during which time he ate voraciously of finely chopped hard-boiled egg, and drank freely from the water dish. He did not seem to be at all put out by my presence, and ate and drank while I was putting food in the cage.

49. **Ceryle alcyon.** BELTED KINGFISHER.— Though less abundant than in Cuba, this bird is common throughout the winter. I noted it at Aguadilla, Oct. 7, 1900, but have no record for their northward departure. The food while here seems to be largely crawfish.

50. **Melanerpes portoricensis.** PORTO RICO WOODPECKER.—Abundant wherever there is enough timber to attract it. I found it on Vieques but not on Mona Island, nor on Decicheo. In general habits, notes, etc., it strongly reminds one of *M. erythrocephalus,* and is equally noisy and vociferous. It is a fruit-eater, even more so than its cousin, and the larger proportion of its food is of a vegetable nature. I have never seen it take food on the wing as does our Red-head. Near San Juan, on July 2, 1899, I made the following note:

"*Melanerpes portoricensis* has many harsh notes somewhat similar to notes of the Flicker, and like that bird it is quite garrulous." April 8, 1900, near Cataño, I shot a female from a pair on a dead snag, and afterwards discovered a freshly excavated cavity close to where they had been sitting. Examination proved it to be not yet completed. It was in every respect like a nesting cavity of the Red-head, and was about twelve feet from the ground. Examination of the bird showed she would not have laid for at least a week. Another pair taken near the same locality April 22, were evidently nearly ready for nesting.

51. **Antrostomus carolinensis.** CHUCK-WILLS-WIDOW.— I found this bird only on the island of Vieques, where in a certain creek bottom I shot two and noted a number more, Dec. 15 and 28, 1899. I secured females in both cases, the stomachs of which were well filled with insects.

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[1] 'Notes on Birds and Mammals Observed near Trinidad, Cuba, with remarks on the Origin of West Indian Bird-life.' By F. M. Chapman. Bull. Amer. Mus. Nat. Hist., Vol. V, pp. 279–330.

52. **Cypseloides niger.** BLACK SWIFT.—Noted a few but failed to secure any.

53. **Lampornis virginalis.**— Common at all points which I visited. At Aguadilla, July 21, 1900, I found a nest, to which I was attracted by the angry demonstrations of the female bird. I first noticed her chase a *Myiarchus antillarum* out of the tree. It was a large tree standing in a corn field, but I failed to locate the nest by watching the bird. She several times took a flight of about ten rods, returning immediately, but would not go to the nest. It was finally found by close search. It was on the end of a limb about ten feet from the ground, and contained two young about half grown. It was well sheltered by large leaves growing above, was cottony in appearance and not particularly handsome, resembling some of the poorer nests of *Trochilus colubris.* March 1, 1901, I made the following note: "Heard a *Lampornis virginalis* sing a 'song,' a sort of prolonged trill or twitter. It also utters sharp chips. When hovering in front of a flower the motion of the wings seems sometimes quite slow, almost within the power of vision, and it sometimes alights on a twig to feed from a flower." Their habits are in general much the same as those of other hummingbirds.

54. **Sporadinus maugæi.** Fairly common though not abundant about Mayaguez and Las Marias. Not seen near San Juan nor on Vieques Island.

(*To be concluded.*)